In the night, when 8 miles off the rocks, I was suddenly disturbed by hearing Lieutenant Jardine, the officer of the watch, call to the quarter-master, and tell him to jump into the chains, and take a cast of the lead: no bottom was found, so I directed the deep sea-lead to be hove, but, finding no bottom at 80 fathoms, and the ship being apparently on a bank with discoloured water, I examined the sea-water with a microscope, and found it full of small animalcula, in shape resembling limpets, of a white colour, which of course at once accounted for the white appearance of the water in a clear, star-light night: this appearance was similar to muddy water in 5 and 6 fathoms.

Having experienced a similar white appearance on the coast frequently, and tried the same experiment, I merely mention it that navigators may not give notice of a supposed danger when the experiment of sounding will prove that there is none.

'*Aden, May 4th*, 1844.

III.—*Account of* Governor G. GREY's *Exploratory Journey along the South-Eastern Sea-board of South Australia.* By Mr. THOS. BURR, Dep. Surv.-Gen. Communicated by Lord STANLEY.

Governor Grey's Letter to Lord Stanley.

Adelaide, June 22, 1844.

MY LORD,—I have the honor to report, that towards the end of the month of April last, I left Adelaide for the purpose of exploring the south-eastern portions of this province, which abut upon the territory of New South Wales.

This part of South Australia has been hitherto almost unknown, having been only traversed in one direction by overland parties; and as the line of route which they had always pursued, passed through a country for the most part of a very unpromising character, it was very generally imagined that the south-eastern portions of the province offered little inducement to settlers, and that there was little probability of any continuous line of settlements being established between South Australia and New South Wales.

I hoped, however, that a minute examination of this country, and more especially of those portions of it which were yet unknown, might show that these impressions were without foundation; and in order that the exploration which I was about to undertake might be rendered as effective as possible, I took with me Mr. Bonney (the Commissioner of Public Lands), a gentleman of much enterprise and ability, and who was the original discoverer of the overland route from Port Phillip to South Australia; and also the Deputy Surveyor-General, Mr. Burr, with whose

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ADELAIDE

Mt. Lofty

Mt. Barker

10-11 Apl.
21-22 May

Murray R.

Upper Grossing P
14-15-16 Apl.
20-21 May

Harriots Sheep St.
11-12 Apl.

Bremer R.

Todds St.
12-13 Ap.

Wellington

19-20 May
16-17 Apl.

L. Victoria

Rosetta Hd.

Giles St.
& or Bonnets Wells
15-18 Apl. 18-19 M

L. Albert

Sea Mls. of the Murray
Barkers Knoll

Desert

18-19-20 Apl.
Water
17-18 May

ENCOUNTER BAY

20-21 Apl.

16-17 Ma

21-22

14-15 May

36

C. Morard de Galles

Lacepede Bay

C. Bernouilli

37

M. Benson

Guichen Bay

C. Dombey

L. Ele

C. Rabelais

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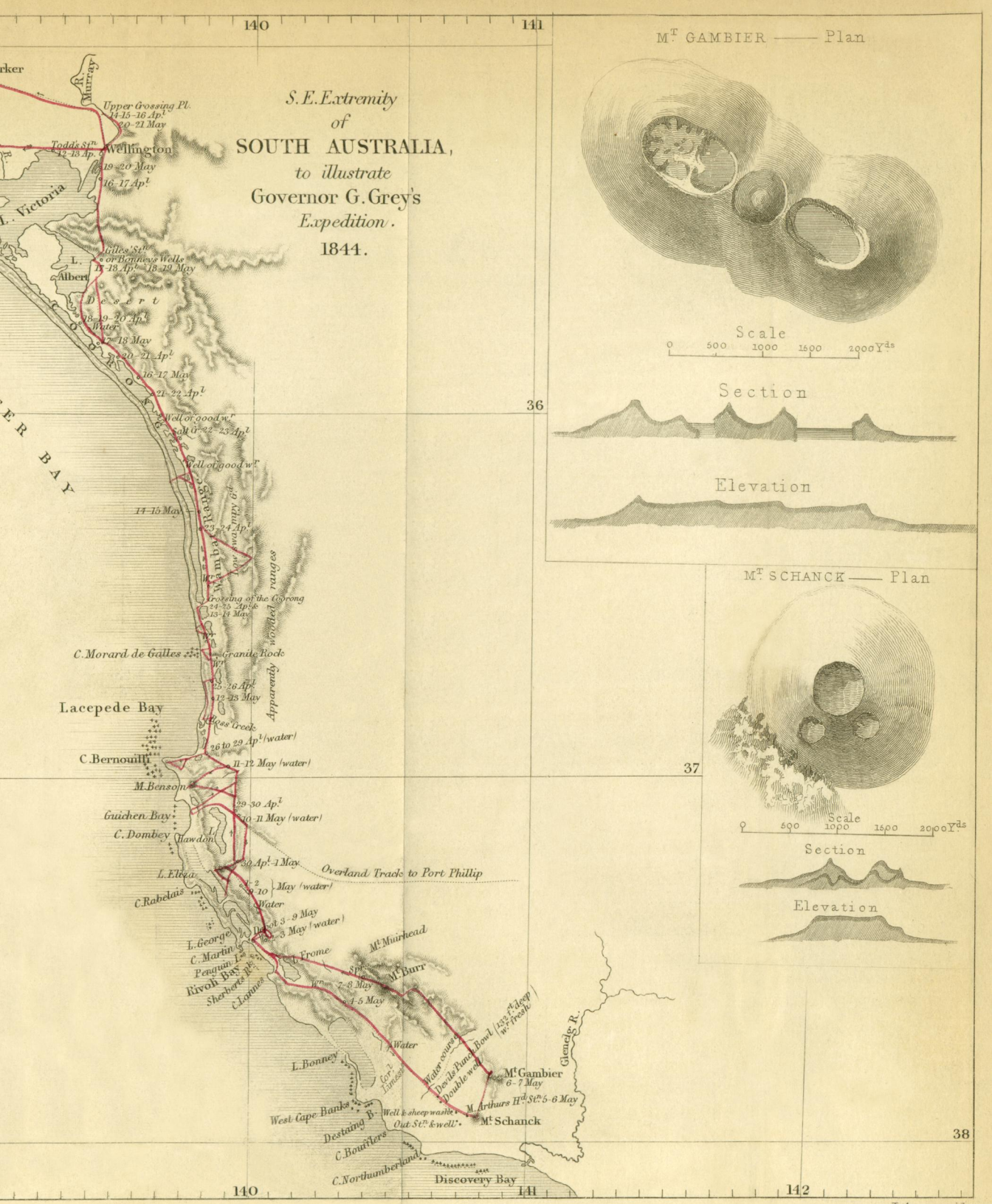
Mt Schanck looking across one of the Coral Basins and Arthur's Station.
From a sketch made on the spot by G. F. Angas

Devil's Punch-bowl, near Mt. Schanck — From a sketch made on the spot by G. F. Angas.

Pub.d for the Jou

S.E. Extremity of SOUTH AUSTRALIA, to illustrate Governor G. Grey's Expedition. 1844.



Mt. GAMBIER —— Plan

Mt. SCHANCK —— Plan

J. Arrowsmith.

Pub.d for the Journal of the Royal Geographical Society by John Murray, Albemarle St. London 1845.

knowledge of the bush, and talent for surveying and exploring, I was well acquainted. I am happy to be able to assure your Lordship that the results of our journey were of the most satisfactory nature; and that we ascertained that by keeping near the sea-coast, instead of pursuing the line of route previously adopted, there is an almost uninterrupted tract of good country between the rivers Murray and Glenelg. In some places this line of good country thins off to a narrow belt; but in other portions of the route it widens out to a very considerable extent, and on approaching the boundaries of New South Wales it forms one of the most extensive and continuous tracts of good country which is known to exist within the limits of South Australia.

One peculiarity of the good country near the south-eastern boundary is, that it is of recent volcanic origin, and that there is every reason to suppose that some of the numerous craters with which it abounds must very recently have been in a state of action. The accompanying map of the newly-explored country, executed by Deputy Surveyor-General Burr, contains plans and elevations of two volcanic mountains, which convey a very good idea of the character of these hills; and the enclosed sketch by Mr. G. F. Angus, a young artist who accompanied me, represents very faithfully one of the most remarkable of another species of crater, which are very numerous in this country, and which are filled with fresh water, and are almost unfathomable. The water in the one represented in this drawing was 103 feet deep, close to the edge of the crater.

The length of time occupied in our journey, and the extent of the country which we traversed, preclude me from attempting to give a detailed statement of the results of this expedition in the form of a Dispatch; and I have, therefore, enclosed for your Lordship's information a Journal of the proceedings of the Expetion, which has been drawn up by Deputy Surveyor-General Burr. I think it, however, proper to state briefly the following points which it has decided, and which, as bearing directly upon the future prosperity of these colonies, it is desirable that your Lordship should be made acquainted with.

The south-eastern portion of the province of South Australia has now been ascertained to be at least as fertile as any other known portions of that colony; and the excellence and great extent of the good land in that portion of the province, the whole of which belongs to the Crown, affords a guarantee that the fund arising from the sale of land, and consequently the means of defraying the expenses of emigration, will increase, for a considerable number of years to come, with the increase of the population; and nearly the whole of this country being unoccupied, a large outlet

yet exists for the rapidly-increasing flocks and herds of the colonists. These circumstances cannot fail to produce most advantageous results, both for the inhabitants of this colony, and for the commercial interests of the mother-country.

Another material point connected with the fertile tracts of land in the south-eastern part of South Australia is that this good country lies in the immediate neighbourhood of the sea, and that this part of the coast contains three bays, one of which has been ascertained to afford good anchorage to small vessels, even in the winter season, and there is good reason to suppose that the other two bays, more especially Lacépède Bay, will be found to possess the same advantage.

The inhabitants of the country which has now been explored, will therefore be able with great facility to ship their produce to, and to receive their supplies from, the adjacent ports, either in New South Wales or South Australia.

As this country lies immediately between New South Wales and South Australia, and forms an almost continuous link of good country between the rivers Murray and Glenelg, and can, in its natural state, be traversed in nearly all directions by drays and carts without the slightest difficulty, there can be but little doubt that in the course of the next few years an uninterrupted line of settlements will exist between Adelaide and Port Phillip: indeed the squatters from New South Wales have already begun to occupy the most extreme south-eastern portion of this new country with sheep and cattle stations.

During our journey we had an opportunity of visiting Rivoli Bay, which is one of the bays to which I have before alluded, and which had previously been only seen from a distance. I formed our depôt at this bay, and proceeded with a detached party to the S.E.; and during my absence a survey of the greater portion of the bay was made by some men of the Royal Sappers and Miners; and the master of a whaling-vessel which was lying there at anchor having lent his boats for the purpose, soundings were obtained both across the entrance to the bay, and over that portion of it which affords the best anchorage.

I thus have it in my power to enclose a chart of a considerable portion of the bay; and I have also forwarded an outline sketch of Rivoli Bay, which was made by Mr. G. F. Angus.

I have the honour, &c.

(Signed) G. Grey.

P.S.—Since writing this dispatch I have received another very interesting sketch, which I have forwarded for your Lordship's

information. It gives an outline of Mount Schanck, which is the mere elevated shell of an extinct crater; and it shows in the foreground another of the extinct craters full of fresh water, which are found in the coral formations.

(Signed) G. GREY.

Extracts from Deputy Surveyor-General Thomas Burr's Journal of his Expedition in company with Governor Grey.

10*th April.*—At 1 P.M. I left Adelaide for Mount Barker; and on the

11*th.*—The drays, which had been dispatched from Adelaide on the 9th instant, were overtaken by me at a sheep-station on the Bremer; proceeding with which, we encamped at 4 P.M. on the N. coast of Lake Victoria, about 12 miles from Wellington.

13*th.*—Arrived at Wellington, on the river Murray, at 3 P.M. On the road we met a party of eleven persons, with seventy head of cattle and four horses, on their way to Adelaide from Port Phillip. They had been nine weeks on their journey, which was performed without accident.

14*th.*—Proceeded up the Murray river to the crossing place; the weather was very boisterous, and the road along the river, at the crossing, under water for a considerable distance; however, we succeeded, in the afternoon, in getting all over to the E. side of the river, except one empty dray, and the bullocks and horses.

15*th.*—One of the horses, on landing, after swimming across the river, put his near hind foot into a hole in a sunken rock. The hole being wide inside, the horse by struggling got his foot turned round, and so firmly fixed in the stone, that notwithstanding every exertion was made to extricate him, by the men belonging to the party and by the natives, some of whom, although it was a cold day, remained in the water for more than four hours, and endeavoured, by diving, &c., to set the horse's foot free, it was not until the horse had been thus confined, with only his head out of water, for more than five hours, that he was released. This was accomplished at last by a native, who contrived to work with a hammer at the rock under water, and, by increasing the size of the aperture, set the horse's foot at liberty. This accident detained us so long that we were unable to proceed on the journey to-day. The horse died from the effects of the cold two or three days afterwards.

16*th.*—Started at 8 h. 20 m. down the river Murray; signalized when opposite Wellington. On finding that his Excellency had not arrived there, we proceeded about 6 miles down the river, to the head of Lake Victoria, and encamped for the night.

17*th.*—Arrived at Bonney's water-holes on Lake Albert at 1 h. 30 m. Met Mr. Bonney, Commissioner of Crown Lands there: he had gone on ahead of the party on the 14th.

18*th.*—Having procured a supply of seven sheep for the party we proceeded on our journey. On the eastern borders of the lake we passed several huts of a far better description than those built by the natives more to the westward. These huts were nearly circular, and 7 or 8 feet in height. The wall was composed of small spars placed in the ground, and rising to about 5 feet at a steep angle; on the top of these spars other lighter ones were placed, and met at the centre; these were but slightly inclined, and formed the roof; the whole was covered with turf, with the exception of a triangular doorway, facing the N.E.

Having followed the overland track round Lake Albert until it took a westerly direction, we left it, and steered nearly S., over a narrow branch of the desert. At 1 h. 55 m. the horse-dray arrived on the Coorong, and a proper place was selected for encamping: at 2 h. 50 m. the bullock-drays arrived.

19*th.*—According to directions given to me, the party was to halt, until his Excellency arrived, at the first good camping-ground which we came to on the Coorong; we therefore remained stationary this day. At 3 h. 45 m. the Governor arrived, and went over to see a party who were on their way overland with horses. They had had an unpleasant journey, more than four months out, and were very short of provisions: we supplied them with flour, mutton, tea, and sugar. They informed us that there was a creek on this side the Glenelg, bearing westward, about 50 miles from the coast, on which there were some settlers; also that we should meet two bushrangers on the road, who had five horses with them, and were making their escape to Adelaide from Portland Bay.

20*th.*—Encamped at 3 P.M. on a flat, near to the spot where M'Grath was murdered by the natives, about two years ago. We saw many natives, who endeavoured to make us understand that they had not been concerned in that murder, or in the murder of the passengers of the Maria.

21*st.*—In consequence of our being crippled by the loss of two pair of bullocks—one pair having been left on the other side of the Murray, and another rendered unavailable through accident—the serviceable number was reduced to eight: it was, therefore, considered advisable to leave some of our luggage and one dray behind, and to put the whole of the remaining baggage on one dray; but notwithstanding the load was thus considerably reduced, the eight bullocks were found insufficient to convey it in one dray, as in a soft or heavy soil it sank considerably: the load was therefore divided again, and on we started with the two drays, each

having a team of four bullocks. At about 4 miles we met a party which corresponded so exactly with the bushrangers that had been described to us on the 19th as being on the road, and who we might daily expect to meet, that we were rather suspicious; and it was not until after a very minute examination that the police were satisfied they had not captured a prize. After a delay of about twenty minutes each party proceeded on its respective route; and at 4 h. 45 m. we encamped on a fine flat, with several wells of excellent water.

22*nd.*—Rode on, as usual, ahead of the drays, and at 1 P.M. made the "Salt Creek," or "Bonney's Creek." After we had been there about 40 minutes an overland party arrived, consisting of eleven persons, with four horses and a tilted cart. It was the same we had met on the river Murray, only nine days before, conducted by a person named Wood. His Excellency, accompanied by Messrs. Bonney, Gisborne, and myself, walked up the creek about 2 miles, when we came to a large hole containing salt water. On walking round this hole it was observed that the native dogs had been there recently, and at several places had scratched away the earth; at one place a small hole had been made by them, only removed by a ridge of earth about 6 inches across and half an inch in height above the water in the large hole: on tasting the water in the small hollow it was discovered to be perfectly fresh.

23*rd.*—At 8 h. 50 m. the Governor's party started for Mount Gambier, and Wood's party for Adelaide. At about 5 miles we came to a well of water, situated about 50 yards to the right of the road. The well contains the best water for many miles, and its situation does not seem to be generally known. In April, 1842, when I had the honour to travel this road with the Governor, this well was discovered by his Excellency, who left the road to shoot. Since that time, I have inquired of all persons that I have met who had travelled on this road, and have found invariably that this well was not known to them. It is situated about 50 yards to the right, after the road leaves the scrub and passes on to the sand-hills. In order to render it conspicuous, we set up marks in such a manner as to direct the traveller to it. About 4 miles beyond this well his Excellency crossed the Coorong at a place where the water did not exceed 6 inches in depth, and went to the beach. The sand-hills from this point are from one-third to half a mile across, and about 200 feet in elevation above the sea. Amongst them the scenery is very beautiful, and may be termed mountain-scenery in miniature; in some places the sand-hills rise precipitately, in others gently; there are many glens and lofty summits, with undulating plains. Shrubs of a peculiar character, and fine bright green foliage, grow among these dunes in luxuriant patches,

whilst in other places nothing but the bare white sand is seen, forming a remarkable contrast. Among these sand-hills we saw several spots which are termed "sand-patches." They are rather remarkable, for they have the appearance of trees or shrubs composed of stone. On inspection I found that these stone shrubs were invariably hollow, and in several cases when I examined the inside of these tubes the appearance was that of a cast, taken from the stems or branch of a tree; this leads me to believe that the sand-patches have been formed as follows:—A shrubbery similar to those at present seen on the sand-hills has at some former period been wholly, or in part, covered with drifting sand; the trees thus covered would naturally die; the dead wood absorb the moisture and form a nucleus around which the lime in the mass would accumulate, and cement the sand in the immediate neighbourhood: this would go on for a time, when a portion of the sand which covered the shrubbery being thus cemented, the remainder, which would still be loose, might by some peculiar eddy of the wind, caused by hills or dales formed in the mean time, be drifted to some other spot, leaving only the portions which had become consolidated, and which have now every appearance of petrified trees. I am still more inclined to believe this to have been the case from having seen similar tubes, on the western side of Spencer's Gulf, with the wood actually filling them.

I believe there are sand-patches presenting a similar appearance to those on the Coorong, the origin of which is quite different; but as they did not come under our observation during this journey, it may not be necessary for me to enter more fully into the subject.

The rollers on the beach were considerable, although the day was perfectly calm. At 3 h. 45 m. we encamped near the road: a well was dug, but the water was brackish, and only fit for cattle.

24*th*.—Having dispatched the drays, his Excellency proceeded to Wambat range, about 2 miles to the E. of the road, from a point on which we proceeded 10 miles in a S.E. direction, to the top of some low scrubby eminences, beyond which to the N.N.E. and E. were apparently a succession of low barren ridges, with wide valleys between them; to the S.E. there were some distant ranges, which appeared to be wooded. From this place we struck off S.W., and crossed a low swampy ground that must be subject to periodical inundations of fresh water, for there were numerous fresh-water shells (particularly Bulimus) on the surface. This swamp continues from where we were to the salt creek. The salt is rotten, but good. There are upon it many small sand-hills, well wooded and grassed, which from the range have much the appearance of islands. Encamped at

the crossing of the Coorong in lat. by Regulus 36° 30′; here is a well of tolerable water. A remarkable change takes place in the character of the country at this point. The Coorong, which has been continuous for many miles (from the sea-mouth of the Murray), becomes here a succession of lakes, and instead of washing immediately under the dunes of sand, there is a space of half a mile of grassy flat between the dunes and the Coorong. The dunes of sand beyond this point also lose their mountain character; they do not attain near the altitude of those to the N., and are no longer bare, but covered with vegetation.

25*th*.—Rode over the sand-hills to the beach, which we followed for two or three miles. On our return at noon we met another overland party. This party consisted of twelve persons (all male); they had with them 550 head of cattle, 320 rams, and 12 horses. At 1 P.M. we came to the granite rock. This is, perhaps, the most remarkable feature in the country that we had seen to the E. of the river Murray. It consists of a large protruding mass of coarse-grained red granite, with numerous embedded masses of fine-grained dark grey granite, and to the N.W. a vein of vitrified quartz rock. It rises to about 20 or 25 feet, and to the N.W. consists of a large smooth mass, rising like a blister from the plain, whereas to the S.E. the blocks are irregular and piled one upon another. There are several small patches with soil upon which kangaroo-grass and casuarina grow. On this spot we saw several kangaroo-rats, which belong to a new species. To the E.N.E. and S.E. there are several other protruding masses of granite near to that described, as also to the N.W. jutting into the sea. The Coorong may be considered to cease at this point. This low granite-range forms a water-shed, throwing the drainage to the N. and S. respectively, to the salt-creek and the sea-mouth of the Murray and to Ross's creek, that by an embouchure, through which a considerable quantity of water flows, finds its way to the sea: on the shore the granite-rock forms a remarkably bold point in a long straight line of coast, and has evidently been taken for a cape by Flinders and M. Baudin; on the chart of the former it is called Cape Bernouilli,* and on the chart of the latter Cap Morard-de-Galles. This rock projects but a few feet into the sea; there is, however, from this point a sunken granite reef jutting into the sea, which, I have no doubt, will be found to be connected with those rocks that break the water, and render it so tranquil in Lacépède Bay: in all probability the entrance to this bay will be found to bear nearly N.N.W. from its bight. We passed four wells on this day's

* The C. Bernouilli of Flinders is not exactly the Morard-de-Galles of Baudin. Flinders's C. Bernouilli is 4 miles N. of the granite rocks, and is clearly more of a cape than is laid down in Mr. Burr's map.—(J. A.)

journey, which had been dug by different overland parties at their camping-ground, and we dug a fifth at our own camp: water was obtained at 5½ feet, in a bluish sand, which lay beneath a white sand. In the sand were numerous shells in a perfect state of preservation, and either belonged, or were nearly allied, to those species which are now found on the coast.

26th.—His Excellency crossed over to the beach from the camp this morning, and followed the beach to Ross's creek; we saw many portions of vessels that had been wrecked, but there was nothing by which they could be identified. It was remarked by Mr. Bonney that there was a great difference in the surf on the beach from that which we had observed on the previous day, when the weather was calm, whereas on this day, with a moderate breeze setting in from the sea, there was no surf, and the sea appeared more like a lake. We were at a loss to conceive the cause of this difference, and went on to the sand-hills to look for breakers, but were unable to see any; speculations were entered into as to the cause of this stillness of the ocean on an apparently open coast. At this time we were not aware of the granite-reef spoken of in this journal on the 25th instant, but not seen by me till the 13th of May, although it is previously mentioned as being connected with the granite-rock. At Ross's creek we noticed for the first time a trellis, which is erected by the natives and used by them to capture birds. The trellis is formed by seven slender sticks, two of which are fixed in the ground about 5 or 6 feet apart, and rise about 4 feet; the tops of these are connected by a third, whilst the remaining four are placed diagonally across. At about 4 feet from the trellis a hollow is formed, which is screened by small branches of trees that rise about 2 feet from the ground, and a small hole is left at the back through which a native creeps, and thus concealed, places the first and second finger of his left hand across his lips, which are slightly opened, and by drawing in his breath, he makes a chirp that calls the birds, which, thus enticed, perch on the trellis-work. The native, concealed in the small bower, dexterously places a noose, attached to a long slender stick held in the right hand, round the neck of any bird that may settle on the trellis, and draws it into the bower. The process is similar to wiring pike. Corporal Mason, of the police, shot several ducks at Ross's creek. His Excellency, being desirous to communicate with the natives, and to establish a friendly intercourse with them, went to their *warleys*, but they had fled. We saw their tracks, which we followed for a short distance; so rapid had been their flight, that they had left some of their goods behind them, and on further pursuit we discovered a basket, an old rug, a digging stick, &c., which, in their trepidation, they had

also left hung on a tree, and in order to mark the spot a fire-stick had been left. The Governor placed some damper in the basket, and we gave up the search. I have no doubt they were watching us from some thicket. There is a very extensive plain at Ross's creek; the soil is rich, but a great portion appears to be subject to annual inundation. This plain is bounded to the S.E., and E. and N., by a low casuarina range. Encamped a short distance to the right of the road amongst the casuarina hills; a well was dug through sand, and tolerable water obtained at about 5 feet. There were many recent shells in the sand, and a recent sandstone with shells in it; the shells were either identical with, or nearly allied to, existing species; at about 4 feet below the surface there was a thin bed of sea-weed between recent sandstone; the sea-weed had every appearance of that at present on the coast.

27*th.*—His Excellency determined on halting with the drays for two days, in order that the equestrian party might visit Cape Bernouilli, and that the bullocks and dray-horses might be rested. At 9 h. 40 m. his Excellency started for Cape Bernouilli; at about 2 miles we made the coast. We passed several fresh-water tea-tree swamps, also some salt lagoons; but by the course which we followed we did not cross any swamps, and a dray might be taken to the coast. Our course is tolerably well defined, as seven horses passed and repassed it. We noticed the same smoothness of the sea as on the preceding day, but could not perceive the cause until we were within 4 miles of Cape Bernouilli, when a heavy surf presented itself, stretching from the cape to the N.W. and N.N.W. until lost below the horizon. The view from Cape Bernouilli is magnificent; the sea was broken for miles as far as the eye could travel; the breakers extended from the coast to the S. round to the W. and N.W., when they were lost in the distance. From this to the coast on the right the water was as smooth as a lake. I have an idea that Lacépède Bay is sheltered by a granitic reef connected with the granite rock on the coast before mentioned, which is a portion of the granitic chain that terminates the Coorong, and forms the water-shed of the salt-creek to the N. and Ross's creek to the S., and that this granite will be found to protrude in many places to the N.E., between the head of the Coorong and the river Murray.

28*th.*—Remained stationary.

29*th.*—Proceeded on our journey, and at night we came up with a party from whom we obtained eleven more sheep. At 4 miles from the camp we passed a well which had been dug by Mr. Bonney in his overland expedition in 1839. The well was sunk through a recent limestone containing many shells. As the water was good, we filled our kegs and proceeded. At 200 yards we entered a wood, the character of which was quite distinct from

that which we had previously seen; the wattle, gum-tree, black-wood, &c. grew luxuriantly, and there was a water-course having a drainage from the eastward. His Excellency was desirous to visit the country round Mount Benson; we therefore left the drays in the road, and steered in the direction of that mount. We passed over about 2 miles of the forest before mentioned, and came to a plain bearing E. and W. On this plain we for the first time met with a calcareous Tufa, which is generally termed "Biscuit." This Tufa presents a singular appearance; the plain was covered with it in pieces of various sizes, some being small and some of a considerable size; each piece was nearly circular, and had much the appearance of ship-biscuit. One of these cakes was broken by me; the form was nearly circular. They appeared to be formed by the deposit of lime held in solution by shoal-water. There is a nucleus for each, round which the lime is deposited in successive layers. If the nucleus had had a rotatory motion instead of being stationary, these biscuits would be in the form of a globe instead of being nearly flat. Beyond the biscuit-plain, we come to a fresh-water tea-tree swamp, with a drainage towards the coast; and from this to Mount Benson the country was gently undulating and grassy, thickly wooded with casuarina, banksia, and stringy bark. From Mount Benson we had an extensive view over an undulating, grassy, and thickly-wooded country, and had a good prospect of Guichen Bay. Returned to the road, and at 4 P.M. encamped under the range immediately to the E. of Lake Hawdon. This range is rather singular; it falls down abruptly to a swampy flat, and immediately below the range there are a succession of tea-tree swamps, in which is an abundance of excellent water.

30*th.*—Showery morning. We made very little progress this day, as we were desirous to find one of Mr. Bonney's old halting-grounds; but being unsuccessful, we encamped in a scrubby plain at night, without water.

1*st May.*—Our cattle having strayed in the night, we lost much time in looking for them. When found, we proceeded on our journey, which was very short on this day, as we did not make more than 5 miles when we came to a tea-tree swamp immediately under a casuarina range, at which we halted, and dug two wells; we came to good water at about 4 feet. Four natives joined our party; they were very shy, but we were able to get them to the camp. Mr. Bonney prevailed on the eldest of them to go with him and show him a native well, for which service he was rewarded with a shirt, and Mr. Gisborne also gave a shirt to one of the others for standing in the same position whilst Mr. Angas made a sketch of him. These natives seemed tolerably well satisfied with their visit to our camp, and were particularly

well pleased with some grease and a damper that was given to them. In the evening his Excellency and I rode to the top of a range about 3 miles to the S.W. We were much delighted with the prospect. To the S. we saw Rivoli Bay, with two vessels riding at anchor, whilst immediately between us and Rivoli Bay and to the W. there was a lake (Lake George), only separated from another large lake (Lake Eliza), which terminated near Guichen Bay, by a narrow strip of land. These lakes had not been previously seen, and were named by the Governor. We were able also to see a high range to the S.E. and Mount Muirhead. There are many low ranges well grassed, and wooded with banksia and casuarina, in the neighbourhood of Lake Hawdon.

2*nd*.—Off at 8 h. 30 m. Passed for 4 miles over a country wooded with casuarina, banksia, and stringy bark, with several tea-tree swamps, when we came to a long plain, which we followed for about 3 miles in a S.E. course; passed by a casuarina hill, with a good supply of fresh water at its base. I climbed up a tree at the top of the hill, and saw Mount Muirhead and high sand to the S. and S.E.; the country immediately round appeared to be wooded with casuarina. The range between the coast and our line of route was of a similar description. From this we proceeded on a course rather more southerly, which we followed up for 4 miles, until we came on the coast-range; the country was well wooded, and adapted for cattle. We crossed over the coast-range, and encamped on the borders of a plain covered with biscuit (Tufa), about 3 miles from the coast. The range, where we crossed it, was finely grassed and well covered with timber, with casuarina, banksia, and stringy bark. We passed by a camp of natives; they had two wambats roasting for dinner; but these natives were so timid that we were not able to communicate with them. On our approach they ran off into the woods, and left everything behind them.

3*rd*.—Up at break of day. The Governor walked over to the beach at Rivoli Bay; the party consisted of seven persons. On arriving we signalized and were heard by the whalers. We walked towards the nearest point from the vessels, and on coming near were met by a party of sailors who had been sent to see who we were. The surprise of the whalers was great; they considered we must be a party from some ship that had been wrecked; on hearing that the Governor was with us, their politeness was great; they took us in one of the boats to an island on the N.W. point of the bay which is covered with penguins. From this island I took many bearings to distant points situated to the S.E. The whalers had a station (two huts) on shore, and had dug a well, in which there was good water. The vessels in Rivoli Bay were the Isabella and the Prince of Denmark

schooners, from Hobart Town. Mr. W. Sherbert, of the Isabella, spoke in high terms of the bay. Back at the camp at 11½ A.M. His Excellency determined on moving the camp to the beach, near to the place where the whalers were stationed, and on establishing a dépôt there, at which the drays, tents, &c. should be left; and on proceeding from thence on horseback, with a reduced party, to Mounts Gambier and Schanck. At 3½ P.M. the whole party had removed to the spot fixed upon for the dépôt, a large well was dug, and excellent water found in a bluish sand at about 5½ feet. The rock at Rivoli Bay is a kind of oolitic limestone, and on the beach there are numerous flints of various sizes.

4th.—At 8 A.M. his Excellency and I started for Mounts Gambier and Schanck: we were accompanied by Messrs. Bonney, Gisborne, and Angas, and three of the mounted police. One packhorse went with the party. We followed the outline of the coast for about 8 miles, when we struck rather to the right of our course, in order to have a view of Rivoli Bay, having taken bearings to Cape Lannes, Cape Martin, the Reefs, and the vessels, to assist in ascertaining their relative positions. We proceeded on a course nearly S.E. for about 1 mile, when we came to a tea-tree swamp, draining into a lake to the left. This lake was not previously known: his Excellency named it "*Lake Frome,*" after the Surveyor-General. We then bore off to the right, to some low grassy hills, which we followed for about 8 miles. From these hills we saw a large lake, which his Excellency named "*Lake Bonney.*" For about 2 miles, after leaving these hills, we crossed a plain, when we came to a swamp, in which there was a native well. At this place we halted for an hour to dine. We then followed the range, under which the well was situated, for 3 miles, when we crossed a swamp and followed another range until it became nearly dark, when we tethered our horses in a beautiful valley, lighted our fires, and made arrangements for sleeping; as it was dark, and we had dined only a few miles back, we did not trouble ourselves looking for water, although there was plenty in the neighbourhood.

5th.—Soon after 6 A.M. we were on our way. The morning was so foggy, that we were unable to see any distant object by which to direct us in our course; consequently, the compass was in constant use. At about 2 miles from the place where we had bivouacked, we came rather suddenly on a camp of natives; there were several fires, but we only saw two of the natives, who were men; the remainder of the party had no doubt concealed themselves. These natives did not appear hostile, but were quite unacquainted with the manners and customs of white people; they did not know the use of damper. The Governor dismounted,

went towards them, and giving a piece to each, endeavoured to explain that it was food; whether they profited by the lesson I cannot say. After leaving the natives we followed the range for about a mile, when we crossed a plain, and came to another narrow range, having passed which, we reached a prettily wooded plain, and followed it for about 8 miles, when we stopped at a tea-tree swamp, dug a well with water within a foot of the surface, made our several fires, and, having tethered our horses to enjoy the luxuriance of the pasture, proceeded to breakfast. A fine range lay about 6 miles to the north. The trees for several miles had altered much in character; the blackwood grew to an enormous size, the Sydney wattle was intermixed with the gum, the mahogany, &c. Having breakfasted off a turkey shot the previous day, we proceeded on our route. The country had much improved since we crossed the Coorong, and we had passed many places which I have no doubt will ere long be occupied by settlers; but in the last few miles this improvement had increased rapidly, and we were fairly in a country of volcanic origin. One mile from the place where we had breakfasted his Excellency noticed some volcanic rocks. We pursued our course through luxuriant forests, and at 2 P.M. passed a small flat which presented a remarkable appearance; the whole surface was bristled with rocks, which stood up from 1 to 12 inches, and might be considered Alpine ranges in miniature; they were of coral limestone. At about 28 miles we crossed a watercourse with many holes, but at the point where we crossed there was no water. At 3 P.M. I called the attention of his Excellency to what appeared to be a chasm in the rock, and which was about 200 yards to the left of our line of route; we made off towards it, and discovered it to be a well of pure water of an oval form, the longest diameter of which was 80 yards, the shortest 70 yards, with perpendicular or overhanging cliffs. Our tether ropes were immediately put in requisition, for the purpose of ascertaining the depth of this singular well. A large stone was tied at one end of the line, which was let down from the cliff; the stone sunk immediately, and the bottom was reached at 132 feet, namely, $28\frac{1}{2}$ feet from the crest of the cliff to the surface of the water, and $103\frac{1}{2}$ feet for the depth of the water. This however can give but a poor idea of the depth of the water in the centre, as the place where we measured it was close to the edge. This well is situated in a level country, and there is no indication of it until one approaches close. The rock is a coral limestone, and the water, although of an inky blue when seen from above, is perfectly pure and fresh. This well was called by the Governor "The Devil's Punch-bowl." At 1 mile S.E. we came to another well, similar to that just mentioned, except that it was divided into two portions by a narrow rock that sloped gradually to the

water, which could thus be reached with little difficulty. From this second well we had a view of Mount Schanck, which bore 108 (deg. ?),* and was 10 miles off. We made for Mount Schanck, and after crossing a narrow belt of scrub, with deep pits and chasms, we came again into a beautiful country. At about 2 miles from Mount Schanck we crossed a dray track running at right angles to our path; we were at a loss to know whether the station to which this track led was to the right or to the left, but from the appearance of the sheep tracks, which were fresh, we considered that the station must be to the right. We then made for a rising ground, and from thence saw something moving among the trees to our right. On calling we were answered by the barking of dogs, and made off in the direction from which the sound came, and in 1 mile arrived at the head station of Messrs. Arthur. There is a well of water similar to the "Devil's Punch-bowl" close to the station, and Mr. Arthur has put up a windlass, with a rope and bucket, on an overhanging rock, and thus the water required at the station is drawn from the well. Mr. Arthur informed us, that he had thrown a weight attached to a line into this well, and the water near the edge was 156 feet in depth; he said there were several similar wells within a mile or two of the station, but that he was not aware of the existence of the large one which we had passed in the afternoon.

6th.—His Excellency with Mr. Arthur visited some caverns in the neighbourhood, and procured from one of them many bones and teeth belonging to the kangaroo, opossum, wambat, and dog. Some of the teeth were very large, and must have belonged to animals far exceeding in size those of the same species which are met with at the present time. During the absence of his Excellency, I walked round to see several wells similar to those we had met with on the preceding day. One of them, which is about 3 miles W. of Mount Schanck, has been converted by Mr. Arthur into a sheep wash. The sheep are driven down an inclined road cut through the coral limestone, which is very soft and easy to work before being exposed to the atmosphere; when properly cleaned the sheep pass up another inclined road, which is arched over on the opposite side of the well. After breakfast we rode to Mount Schanck, tethered our horses at the foot of the mountain, and ascended on foot. This mountain rises at an angle of about 45° for about 600 feet from a comparatively level country, and attains the altitude of 800 or 900 feet above the sea level. There are three distinct craters: the principal one is 500 yards in diameter; the crater to the E. is about one-third as high as the principal one, and 200 yards

* The direction, inadvertently left out in the text, will be seen on the map.—ED.

across; that to the S. is rather more elevated than the eastern one, and about 250 yards across. The small craters are on the slope of the main crater; they are all nearly circular; there is no water in either of them, but they are covered with rich vegetation on the inner and outer slopes. From the rim of the main crater there is a very extensive view; many of the hills in New South Wales about Cape Bridgewater are plainly visible. At the base of Mount Schanck, to the S.E. and S.W., there is a large mass of cellular wacke, which is generally bare and rises abruptly above the plain, with a wall nearly perpendicular about 6 or 8 feet in height. The wall has much the appearance of having once formed a sea beach. When riding on the S.E. end of the mountain we noticed a hollow sound, as though we were riding over a vault; this sound was not so apparent on the other sides. The basalte, or cellular wacke, in some places formed dykes in the inner slope of the crater, where it contrasted beautifully with the vegetation, which on either side of the walls of bare rock reached from the top to the bottom of the slope. The crater was inhabited by numerous animals, the traces of which were plainly visible. The lava that I obtained was nearly black, and in irregular masses. Having devoted as much time as could be spared to Mount Schanck, the party proceeded to Mount Gambier, which is situated 8 miles from Mount Schanck, and in a direction 9° E. of N. The country that we passed over was of the richest description, and the scenery beautiful. Mount Gambier is rather higher than Mount Schanck, and of an oval form. The length is 600 yards, the breadth 120 yards, and the largest diameter has a direction nearly E.S.E. We passed up to the top of the crater at a low point to the S.E., from which we proceeded along a sidling pathway to the bottom. About one-third of the eastern portion of the crater forms a lake, with high perpendicular cliffs, except to the west, where it is bounded by a gently sloping hill that runs nearly N. and S. across the crater, dividing it into two nearly equal portions. The water in the lake is good and very deep, and there were numerous ducks upon it. The western portion of the crater has several small lagoons, which contain water; by the side of one of these we bivouacked for the night. There is a cattle station about 2 miles to the right of Mount Gambier belonging to Mr. Henty. Having descended from Mount Schanck, we dined on damper and tea. The night was exceedingly dark, with heavy clouds, through which occasionally a star was seen; when the moon rose, the effect was singularly beautiful; to the E. the black wall which surrounded us was finely thrown out in relief by clouds which rose behind in silvery masses. During the short time of light which remained, after our getting to the crater, his Excellency walked to the eastern rim with Mr. Arthur, to see

two other craters that are situated immediately to the E. of that in which we were. The second crater has no water in it. The third forms a large lake of deep water, and is only separated from the second by a narrow ridge, which is nearly perpendicular, and forms a bridge between the second and third.

7th.—The rising of the sun this morning was magnificent; the atmosphere was clear, the rosy hue of the sky was cast upon the side of the crater, and showed upon its eastern wall two men and several dogs, whom we afterwards found were coming to us with a supply of beef. When the sun was well up, we made our exit at a low point to the W. in the rim of the crater: it was excessively steep, but the horses managed to scramble up; his Excellency, with the remainder of the party, descended to the plain below in our line of route, whilst I and Mr. Arthur ascended to the highest point of the mountain. Having taken the necessary bearings, or rather such as my time would allow, we descended to the plain, to which our horses had been led. I procured some red porous lava and other volcanic productions from Mount Gambier. Mr. Arthur left us here, and we proceeded on a N.W. course, through a country very finely timbered with gum trees, Sydney wattles, stringy bark (Sydney), and blackwood of gigantic growth. We crossed, at about 9 miles, two narrow swamps, and then entered a forest principally wooded with stringy bark; this we followed for about 3 miles, when we passed over a swamp for about 2 miles, at the termination of which we again entered a fine country, that continued through the remainder of this day's journey. At about 2 P.M. we made the top of a range, the principal summit of which his Excellency has done me the honour to call after my father. The Mount Burr range is about 1600 feet above the level of the sea, and generally steep to the S., S.W., and W.; but on the opposite side the ascent is more gradual, so much so, that we were hardly aware of being on high ground until we were near the summit; it appears to be connected with Mount Gambier by a lower range, which we had kept on our right during the day. From the most western point of the Mount Burr range that we visited, we were able to see Mount Gambier and Rivoli Bay, with many other points. After I had taken some bearings we proceeded about 5 miles, when we came to a fine spring, which rises at the foot of a limestone hill, and forms a pretty little stream. At this place we saw a new kind of cockatoo; it was small, and of a dark rifle green: unfortunately we were unable to procure one as a specimen. We bivouacked near the spring, which is about 4 miles S.S.E. of Mount Muirhead.

8th.—We started early this morning for the depôt, and after riding about 14 miles across a fine plain, 6 or 7 miles N. of our track on the morning of the 5th, we came to the range crossed on

the 2nd. We fell in with some natives at a camp on the range; we saw only women and children, and they ran off and concealed themselves in some reeds at a well hard by; his Excellency dismounted and followed them, and although they were exceedingly shy, he succeeded in holding a short converse with them. He gave one of the women a handkerchief and some damper: with the former she expressed herself much pleased; she was quite unacquainted with the use of the latter; on being shown that it was intended to be eaten, she put some into her mouth, but did not swallow it in our presence. By the camp of the natives there were many small fish and beetles, some of which were roasting for dinner; these delicious morsels would have been overcooked in consequence of the delay occasioned by our visit, had we not removed them from the fire. We examined all their shields, spears, &c. Mr. Angas took sketches of such as were of a different make from those we had previously seen. There was one piece of limestone rock $4\frac{3}{4}$ inches in length, and $1\frac{1}{2}$ inch in diameter, which was used by them as a pestle for pounding roots: this I coveted for my cabinet, and consequently stole; but as a good supply of damper was left in its place, I trust they will pardon the theft. The boomerang is used by these natives, but does not appear to be in use by those farther north. From the natives' camp we proceeded to Lake Frome, and followed a native path which went round the head of the lake. At 3 P.M. we arrived at the depôt, having ridden along our outward track for about 5 miles. During our absence, Corporal Ide and Private Baker, of the Royal Sappers and Miners, had made a chart of the bay, and Mr. William Sherbert, the master of one of the whaling vessels in the bay, having allowed them the use of a boat and crew, they were enabled to take the soundings over a portion of it.

9th.—His Excellency, accompanied by Mr. Gisborne, went to a rock (Sherbert's rock), in one of the boats belonging to the "*Prince of Denmark,*" to hunt the sea-lions which are on that rock. Mr. Bonney and I started homewards with the bullock-drays; the horse-dray remained behind to bring any specimens that his Excellency might procure. At about 2 miles from the camp we passed a number of natives, but they were too shy to speak with; although Mr. Bonney rode after them, and made signs of friendship, they ran off and concealed themselves. Soon after 4 P.M. we arrived at our camping ground of the 1st and 2nd May, having halted for two hours in the middle of the day: and in about half an hour, the Governor, with the remainder of the party, came up. His Excellency had been so fortunate as to capture one of the sea-lions, by putting two balls into its head; the party in the boat landed on the rock, and killed it

with clubs. There were four of these monsters on the rock: that which was killed roared loudly when he received the shots, and showed fight afterwards when approached. The length of this animal is 8 feet, the girth of the body 9 feet; the head is much like that of a lion, and when enraged he bristled his mane, roared loudly, and opening his mouth displayed his tremendous teeth. On opening it, the stomach was found to be lax, and not muscular, so that in this respect the stomach of this animal almost exactly resembles that of an albatross. The sea-lion lives on squid and small fish, and is in the habit of swallowing stones; in this it also resembles the albatross. In the stomach of that shot by his Excellency there were five large pebbles (limestone), which weighed in all 4¼ pounds. The Governor had also brought with him two natives (young men), who I believe were with those passed by Mr. Bonney and myself in the morning, and who, on seeing us with the bullock-drays, considered that our party was gone, and went down to look about for any little thing which might have been left behind, for soon after our departure they came to the camp. At first they appeared surprised to find any one there, but having gone so far, found it difficult to retreat. After a little parleying they were induced to go to the camp, and expressed themselves much pleased with everything they saw, more especially with the well. Having thus made acquaintance with the party, and feeling that they were safe, they were induced by a little coaxing to come on, and were much delighted at riding on horseback. They were very merry fellows, and exceedingly careful not to give offence: they would not move hand or foot without first obtaining permission; when they wished to sit down, they asked leave most submissively, and did not rise without doing the same. A sheep had just been killed, the head and interior of which were given to them. They first asked whether they might put it on the fire to cook, and when it required to be turned, they sought permission to do so, as also to eat it when cooked. Mr. Gisborne, to assist them in their meal, cut the head into pieces, and tried to divide the bone with a large buck knife which he had: the blade of the knife broke, leaving a portion in the head, and Mr. Gisborne kindly spent some time in taking it out, fearing lest the poor fellow should swallow it. At dinner time the use of knives and forks, and spoons, and pannikins, &c., was explained to these good natives, and they expressed themselves much satisfied with the treatment they received, and were particularly pleased with eating sugar. When they had been well feasted, and had anointed their bodies with grease, they wished to go to bed; and on being shown where they were to sleep, which was at a fire about 20 yards from the camp, they laid themselves down to rest. I wished very much to get

the latitude of the camp, but as Regulus, the only star which passed the meridian at a reasonable time, was in its place for taking an altitude, he was obscured by a cloud, and we all retired to rest.

10th.—At 1 P.M. the dogs barked a great deal, but as it was supposed that their uneasiness arose from wild dogs being in the neighbourhood, no notice was taken of them. At 2h. 20m. A.M. I was aroused by the serjeant-major of police, who came to ask what was to be done, as the natives had decamped, and had taken the sheep with them. I immediately went out and ascertained that these submissive natives had taken the opportunity when we were asleep, and had stolen everything they could lay their hands on. They had taken six spoons, four forks, and six knives, which had been used at dinner, and were cleaned for breakfast, and wrapped up in a couple of towels; they had also taken three pannikins, an axe, and the sheep (the head of which they had eaten for dinner), with a portion of the rope with which it had been hung in a tree: not satisfied with this, they had been daring enough to go to serjeant-major Alford and private Hall of the police, and had stolen their hats. I was much amused, during this examination, by Baker (who was sleeping under one of the drays) putting his head out and drily saying, "Give a look round and see that none of the drays are gone." Having satisfied myself as to the extent of the loss, I retired again to rest, knowing that pursuit would be useless. I have no doubt but the natives who served us this trick were conjurers or jugglers amongst their tribe, for they were the most active and restless fellows I ever beheld. During the time they were with us they were continually in motion, and said "Lip, lip," which might have been intended for "Sleep, sleep," as I have no doubt they were anxious we should sleep. In all probability there were others who helped them off with the plunder, and they will be considered great men among their tribe. They are the first natives I have known who have been able to set up housekeeping with family plate. If our party had consisted of only three or four individuals, there is every reason to believe that, in order to attain their end, these natives would have committed murder; but, with a party so large as ours was, they were afraid of causing an alarm, in which case they must necessarily have been overpowered. At about 8 A.M. we were on our road. At 4 miles from the camp we passed over a low ridge to the southern border of Lake Hawdon, where we struck off in a course nearly N., across the swamp which surrounds the lake, and, having gained one day on our outward journey, at 4h. 40m. we arrived at the spot where the Messrs. Scott were stationed with their sheep when we passed on the 30th of April: as this was a good camping ground, we remained there for the night. During the day we had seen many

emues, kangaroos, and wild dogs, and had some good hunting after several of them.

11*th.*—Rather a wild-looking sky, but as there were only a few showers, his Excellency determined to visit Guichen Bay; accordingly, orders were given for the drays to proceed to a certain spot, which was chosen as a camping ground for that night. Having made these arrangements, his Excellency, accompanied by Messrs. Bonney, Gisborne, and myself, with one of the police, proceeded to the bay, where we arrived after a ride of about 10 miles; our course was nearly W. On the road we passed a place covered with calcareous tufa, in balls nearly spherical. From the coast-range we descended a valley to the bay. Near the coast we came unexpectedly on two natives who were lying in the grass; we halted and spoke to them, but they seemed much annoyed at being disturbed, and rose, each having a large bundle of spears in his hand. They would not approach us, but walked off in our rear, at an angle of about 45° from our course, looking scornfully and with suspicion at us, but evidently afraid. After they had walked about fifty yards they sat down, and the younger one showed that he recognised us. He was one of the natives who had been at our camp on the 1st instant, and had been well treated. The shirt that Mr. Gisborne had given him was laid aside. These natives would not become reconciled to our presence, but called out for the natives in the neighbourhood. We therefore rode on, and after I had taken the bearings which would suffice to give a general idea of the form of the bay, we returned, and passing over a very picturesque country came to the overland road, about 5 miles from the place at which we were to encamp for the night. Just after coming into the road we encountered a thunder storm, with heavy rain; which I have great reason to remember, as my mare was knocked up a few minutes before it commenced, which obliged me to walk to the camp.

12*th.*—His Excellency left us, accompanied by four of the police, at 9h. 45m. this morning. There were heavy showers occasionally in the day, especially during the early part. At 10h. 5m. the drays started. We halted for a few minutes at Ross's Creek to take water for the night, and then proceeded for about 4 miles, when we encamped.

13*th.*—I rode off to the Granite Rock, as we passed it, with a view to get one of the kangaroo-rats, of the kind which we had seen there on our outward journey; but the gun would not go off in consequence of the rain, which had fallen since we started, having damped the caps. From thence I proceeded to the beach, and visited the granite rock mentioned on the 26th of April; from the sand-hills near which, I perceived that the Wambat range had not terminated, but, though farther removed from the coast, continued towards the S. Mr. Bonney and I met

on the coast, he having left the road some time after. At 2¼ P.M. we arrived at the place where we had previously encamped at the crossing of the Coorong, and halted.

14*th.*—This day we proceeded to about 40 miles beyond the place where we encamped on the 23rd and 24th of April.

15*th.*—We passed the Salt Creek, and encamped on a plain 2 miles beyond.

16*th.*—Messrs. Gisborne and Angas left us this morning for Adelaide; we encamped on a flat near the Coorong, at which the Governor stopped in May, 1842.

17*th.*—At 1h. 30m. P.M. we arrived at the place where M'Grath was murdered, and, having taken up the articles we had left there on our outward march, proceeded. At about 1 mile from the well Mr. Bonney and I went off the road, and met an old native, who was sitting under a little bush. We immediately recognised the old man as one we had seen at the same place on the 20th of April, and who was then in good health, and robust; but what a change! Now he was lying, almost without covering, by a small fire, with a few sticks by his side, and nearly dead for want of food. He was very glad to see us, and vociferously asked for damper, making us understand by signs that he wished to have branches of trees placed so as to make a warley, also that he required fire-wood: these wishes were complied with, and a plentiful supply of each was brought to him; but we noticed that he was much emaciated and in great distress. I therefore sent for Jemmy, the native who accompanied us, and although Jemmy belonged to the Rapid Bay tribe, he was able to understand a good deal of what the old man said, and in this way I learned that, being sick and unable to provide for himself, he had been left by his tribe to perish (this is commonly done by the natives). On examination, I found that the poor old fellow had lost the use of his legs, and was therefore unable to move about in search of food; that the small bundle of wood that lay by the fire had been reached by him around where he lay; and that he had been left thus for seven days, to die of cold and hunger. As he had collected all the wood that lay within his reach, and was destitute of food, in the course of a few hours he must have perished. I measured his arm above the elbow, at the thickest part, and found that it was barely five inches round; his stomach was in folds, for want of food; and in every respect the most emaciated being I ever beheld. Finding this to be the case, I considered that the warley we had made, and the food we had given to him, with the fire-wood we had put within his reach, would only last for a short time, when he would be in as bad a situation as that in which we had discovered him: I therefore put him on Hall's horse, and Jemmy, who showed great kindness towards the old man, was put behind to keep him on, as he was unable to sit upright. We thus pro-

ceeded to the drays, and having made as comfortable a place as time would allow on one of them, the old native was taken from the horse and placed on the dray. We proceeded 4 miles, and encamped for the night. The natives who had left the old man we had brought on, encamped near us: on the invalid's being informed that this was the case, he was very anxious that we should shoot them. The natives came to our camp, but it was a long time before he would speak to them.

18*th.*—As I was anxious to get to Adelaide as soon as possible, I struck off the road across the desert for Mr. Giles's head station on Lake Albert. The old native we had saved from perishing was brought on with the drays; when he left his kindred he said in his native language that he "would return when he became fat." A boy, about nine years old, belonging to his tribe, wished to come with me to Adelaide, and accordingly I brought him. At 3 P.M. we arrived at Mr. Giles's station, having crossed the desert at a narrow part; and when free from scrub and hills, our course from the Coorong was straight, and we came into an overland road, about 3 miles from Bonney's water-holes. I would strongly recommend persons who are going overland to follow our track, as by doing so they will only be one day longer than by going to the Salt Creek by the road through the desert, and will save two days by the road in general use along the Coorong. Our track may be known, as it is well beaten by our three drays having gone in line over it. We passed just to the left of a sand-hill, about 5 miles from Mr. Giles's house at Lake Albert, and came into the overland track about 3 miles from the water-holes.

19*th.*—Encamped on the eastern side of the river Murray, 3 miles below Wellington. The old native we had brought with us was rather troublesome, as he wished to be left behind with some natives we met on Lake Victoria; however, as he had come so far, I did not like to leave him behind on the lake, and wished to take him to Wellington, where he would have been properly taken care of. During the night, however, he was conveyed away by the natives, and concealed in the reeds. The boy I took up yesterday was much alarmed at the natives on the lake, and when we were near any of them he concealed himself under a large cloak in the dray.

20*th.*—Followed the river Murray to the upper crossing-place, and encamped at 2h. 20m. P.M.

21*st.*—We were moving by peep of dawn, and by 11h. 30m. A.M. all was over the river, although we were much troubled by the bullocks—they were urged in, but would not cross: the boat then took one in tow, and I expected that the others would follow, but they would not do so; and it was not until three of them had been towed across, and a fourth taken in tow, that the remainder would follow. Having seen everything safe on this side of

the river Murray, I considered that my duties as regarded the expedition were concluded, and as Mr. H. Giles was on his road to Adelaide, I accompanied him; we rode straight across the scrub to Mount Barker. The scrub in some places is very thick and high, but, with a little labour, a good dray-road might be cleared. Arrived at Mount Barker, where I remained for the night.

22*nd.*—Discovered on the estate of Captain Davison at Mount Barker some of the first granite I have seen in that neighbourhood. At 2 P.M. I reached home; and therefore bring this report to a conclusion.

In the foregoing pages I have given a detailed account of the proceedings of each day. I may now be permitted to offer a few remarks relative to the country passed over during the expedition.

From the neck of the peninsula which separates the Coorong from Lake Albert to the Salt Creek, or Bonney's Creek, there is a belt of grassy casuarina hills, with numerous plains of good soil, and in which water may be obtained within a short distance of the surface, as far as I have seen not exceeding 6 feet. This belt is bordered to the N.E. by the desert, and to the S.W. by the Coorong.

From Bonney's Creek to the crossing of the Coorong, a distance of about 35 miles, the road passes generally amongst a succession of salt swamps and low scrubby hills; but in this distance good water may be obtained at two points,—viz., at 5 miles and at 30 miles, leaving only a space of 20 miles to be passed over without water. About 2 miles N. of the road, and following a direction nearly parallel to it, there is a low range (Wambat Range), behind which there is an extensive fresh-water swamp several miles across, which appears to be subject to annual inundations. The soil on this swamp is similar to that of the flats of the river Murray. There are many grassy isolated hills in the swamp; these hills have much the appearance of islands. Beyond the swamp to the N. and N.E., there are a succession of ranges which do not from a distance look very promising.

From the crossing of the Coorong to Cape Bernouilli the country improves: from Cape Bernouilli to Guichen Bay, and for some distance around Mount Benson, and to Lake Hawdon, there is an useful tract of country.

The range that follows the coast from Cape Bernouilli to Lake Bonney, and which we crossed at several points, is very picturesque, as far as we saw of it, especially immediately at the back of Rivoli Bay; and there are many other similar ranges, separated by low level ground, a great portion of which is subject to inundation; but the soil is excellent: and some of these plains have been so far raised by the action of earthquakes as to render them dry, and available for pasturage or agriculture.

Rivoli Bay was mentioned in a former part of this report as

having been spoken of in the highest terms by the masters of vessels at anchor in it. Mr. Sherbert informed me that he had anchored under Cape Lannes, and afterwards gone round between the reefs and the land to the spot where the vessels were at the time we were there; that the depth of water within the reefs was from 5 to 6 fathoms. He also informed me that a vessel entering the bay must keep well out to the westward, and then run right in about midway between Penguin Island (Cape Martin, probably Cape de Joffa of the French, but not previously named in the English charts) and the next reef to the S., which is about $1\frac{1}{2}$ mile from the island, and not between the two reefs, which are about $1\frac{1}{2}$ mile apart: the channel is from $3\frac{1}{2}$ to 5 fathoms deep.

From Rivoli Bay to Mount Schanck, and from thence round by Mount Gambier back to Rivoli Bay, we passed, for the most part, over a country of the richest description; the soil was a dark-brown loam. The trees grow luxuriantly; the blackwood grows there to an enormous size: beside which there are several trees quite different from those in the neighbourhood of Adelaide. We also saw several new birds; but owing to the rapidity of our movements, we were unable to procure any specimens.

The country around Mounts Gambier and Schanck is evidently a coral reef, which has been raised from the deep. As these reefs always occur, forming a succession of islands which have a particular line of direction, we may hope to be able to follow this line up, and to discover more tract of country of a similar description to that which we visited.

Lake Bonney is the largest sheet of water we saw to the S. of Lake Albert. This lake borders the ocean, and at one point there does not appear to be anything to divide the lake from the ocean, as there is an apparent gap in the sand-hills. If this should be the case, and a navigable entrance be found even for very small craft, the lake will be of great value to this part of the country; but considering the openness of the coast, I much fear any connection between the lake and the ocean would be choked up by sand.

There is much of the country from the river Murray southward, within the limits of this province, which still requires to be explored before we can give any decided opinion as to its character. There are several points, as far as I could judge during this expedition, from which an examination of this country might be undertaken. One is from Cape Bernouilli, or Mount Benson, or somewhere in that neighbourhood; another, from Mount Muirhead, in a course to the E. of N. In either case, I believe that the mysteries of this portion of the continent might be solved; or it might be done from several places on the river Murray, between the head of Lake Victoria and the Great Bend.